

Edgewood College Madison, Wisconsin

Annual Report for 2007

Introduction

Edgewood College is a liberal arts college located in Madison, Wisconsin, adjacent to Lake Wingra. The college is administered by the Sinsinawa Dominican Sisters. The fifty-five acre campus also includes a high school and elementary school.

Edgewood College applied to become a member of the Green Tier program in June 2006. The application was approved in October 2006. This report is the first annual report to be submitted to the Wisconsin Department of Natural Resources by Edgewood College.

Executive Summary

Edgewood College completed the first full year as a Green Tier Level 1 participant in 2007. By becoming a Green Tier participant, Edgewood College reaffirmed its commitment to complying with regulatory requirements, reducing our ecological impacts, fostering continuous improvement and integrating environmental awareness and conservation into our curriculum.

Edgewood College's Green Tier application highlighted our intentions to: (1) reduce energy use, (2) enhance wetland management, and (3) obtain LEED certification for the construction of a new residence hall. This annual report provides information on the status of working to achieve these three major goals.

Accomplishments and collaborative work targeted in the Environmental Management Systems (EMS) plan's goals and improvement strategies are included in this annual report. Some of the significant accomplishments are listed below.

- An EMS plan was developed to be functionally equivalent to the ISO 14001:2004 standard for an EMS. The internal audit for the EMS plan will be completed in early Spring 2008.
- Construction of a new residence hall was completed and the building was granted basic LEED certification (26-32 points). Silver level LEED certification has been requested and the additional information/points have been submitted. The evaluation to grant the higher level certification is in progress.
- The solar panels installed in Dominican Hall are anticipated to result in energy savings of 15 percent; construction waste associated with the dorm was 98 percent recycled.

- A Sustainability Coordinator for the campus has been designated. The job description is to promote and coordinate varied sustainability initiatives and efforts, both those proposed and those in progress, throughout the campus community.
- Energy savings have been achieved by the Facilities Department by replacing lighting in the Sonderegger Science Center stairwells, the Edgedome gymnasium and the parking ramp stairs, with anticipated savings of 4-12 percent.
- A 1,100 square foot boardwalk was constructed to enhance management of wetlands between the college and Lake Wingra.

Environmental Performance

Following are environmental performance results for initiatives targeted during 2007:

- Energy Use
 - The overall use of **natural gas** in 2007 decreased from 0.1659 therms/ft² in 2006 to 0.0973 therms/ft², a decline of 41%.
 - The overall use of **electricity** in 2007 increased slightly from 10.5015 kWh/ft² in 2006 to 11.3618 kWh/ft², an increase of 8.2%; we attribute this undesired outcome to an increase in electronic business equipment and personal electronics used by residence hall students.
 - **Solar panels** were installed on the new residence hall to provide pre-heat energy for hot water use in the residence hall. The projected energy savings over conventional water heaters is 15%.
 - An **Eco-Olympics** was held during the Spring 2007 semester where students in each of the five residence halls competed to reduce electricity, heat, and water use, compared to a pre-Olympic benchmark. The winning residence halls obtained 21% reduction in water use, 15.3% reduction in electricity use, and 44% reduction in heat use.
- Construction
 - A **window replacement project** was completed for the Regina residence hall/classroom building to improve energy efficiency. The aluminum framing from the old windows was **recycled for a total weight of 5900 pounds.**
 - The **construction waste** from the new residence hall project was **98 percent recycled.**
 - The initial submittal requesting LEED certification for the new residence hall was granted. **Dominican Hall is now LEED certified at the Certified level (26-32 points).** Information regarding additional points has been submitted and LEED Silver certification has been requested.
 - **Lighting** has been replaced in the Sonderegger Science Center stairwell for an anticipated energy saving of 12%.

- **Lighting** has been replaced in the Edgedome gymnasium and new controls added for an anticipated energy saving of 8%.
- **Lighting** has been replaced and light sensors have been added to stairwells in the parking ramp for an anticipated energy savings of 4%.
- Transportation
 - The new residence hall has an **interior bicycle storage room** and bicycle repair room to encourage all campus resident bicycle use.
 - A **day-use/errand bicycle was funded** and is maintained by the Environmental Studies Council, Alternative Transportation Committee.
 - Additional **outdoor bicycle racks were purchased** and located by the entrances to the classroom and residence buildings.
 - A **Shuttle Service** was initiated. The College rents space at two off-campus locations, each several miles away, where employees and students park their vehicles. This has significantly reduced the number of cars driven into the campus area.
 - **Bus passes** are provided free to faculty, staff and students. Bus pass use has increased by approximately 15% when compared to the corresponding previous semester.
- Sustainability
 - **A Sustainability Coordinator** for the campus has been designated to coordinate efforts among the interested campus groups. The Coordinator has also been attending training and networking events, such as Practical Energy Management presented by Focus on Energy.
 - The Environmental Health & Safety Director received **training in ISO environmental auditing** by IQS.
 - A **1,100 square foot boardwalk was constructed** along Lake Wingra to help manage the wetlands between the college and the lake.

EMS Audit

The initial review of the EMS will be completed during Spring 2008 and then reviewed by senior management. Elements of the initial EMS plan that have been improved on include the following:

- Policy – expanded commitment to pollution prevention
- Planning – included additional tools for establishing environmental objectives and targets
- Implementation and Operations – emergency response procedures have been reviewed and updated
- Checking and Corrective Action – paper documentation/records are stored in fire safe files for a 30 year retention period

- Administration Review – an initial management review has been completed

Elements in progress, or in need of additional improvement, at this time include the following:

- Guidance Document – create a document outlining how environmental procedures and policies are developed.
- Planning – maintain on-going diligence of environmental requirements and operational practices to ensure appropriate goals and objectives for the campus
- Implementation and Operations – roles, responsibilities and authorities are being refined and training needs and implementation are being identified
- Checking and Corrective Action – methods to ensure all appropriate information is recovered and analyzed are being expanded and corrective action procedures are being reviewed
- Administration Review – the final EMS review by senior management will be completed in the immediate future.

Stakeholder Involvement

- Staff Education
 - The Environmental Policy has been distributed by Human Resources as part of new employee orientation materials. Printed copies appear in the faculty and staff lounge in the main administration building, and other prominent places.
 - Green Tier and college environmental initiatives were presented to all administrative units that report to the Chief Financial Officer.
 - The Leonardo Academy made a presentation about achieving LEED certification in existing buildings (LEED EB) to representatives of facilities and faculty.
 - Faramarz Vakili-Zadeh, the University of Wisconsin-Madison Energy Conservation Program Director made several presentations on campus about best practices in environmental facility management.
- Student Education
 - Students participated in the annual Eco-Olympics; they learned best practices in environmental management and educated residence hall students about environmental behaviors.
 - The student newspaper published several articles about Green Tier, the Eco-Olympics, and “going green.”

DNR Relationship

Prior to our Green Tier certification, our contact with DNR was limited to fulfilling regulatory requirements. Since being certified Green Tier in October 2006, we have developed an on-going relationship with several DNR staff members. Through this relationship we developed a much deeper understanding of the nature of EMS plans and how to implement them. We are in the process of significantly increasing documentation of environmental policies and procedures.

Another important outcome of our Green Tier certification was having a DNR point of contact person to help expedite the necessary permits for boardwalk construction.

The deepening of the relationship between Edgewood College and DNR is symbolized by Professor Denis Collins being appointed to the Green Tier advisory committee.

Future Environmental Target Areas

For 2008, target areas to be focused on include:

- Energy audit to be conducted by Focus on Energy, with results informing future goals and strategies
- Create a Campus Sustainability Coordination Committee composed of facility personnel, faculty, and student life office
- Create EMS guidance document
- Ongoing eradication of invasive species along Lake Wingra boardwalk
- Incorporating LEED elements into student lifestyle

Concluding Comments

Much has been accomplished during Edgewood College's first year as a Green Tier certified business. Environmental issues have long been central to Edgewood's philosophy and its approach to campus improvement. Involvement in the Green Tier program has inspired us to institutionalize, coordinate, and document our many initiatives and good intentions. We look forward to our continued evolution as an environmental leader in higher education.